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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,647	03/30/2001	Kazushi Wada	09792909-4799	7645

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EXAMINER

SOWARD, IDA M

ART UNIT	PAPER NUMBER
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2822

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/822,647

Applicant(s)

WADA, KAZUSHI

Examiner

Ida M Soward

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

This Office Action is in response to Applicant's amendment filed January 6, 2003.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art Figure 4 in view of Yamashita et al. (5,463,232).

Admitted Prior Art Figure 4 teaches a solid state imaging device having an output portion **113** connected to an output end of a horizontal transfer register **112**, the output portion having a gate structure **142** including an oxide film **121** and a nitride film **122**, the solid-state imaging device comprising: upper layer films **151** & **161** allowing light to pass through; a first metal made shield film **155** formed in such a manner as to cover a region of the gate structure including an oxide film being disposed above a transfer portion of the solid state imaging device, wherein a metal made film **145** has an opening at a position directly over a floating diffusion region **143** of the solid state imaging device; a film **161** capable of absorbing ultraviolet rays, the organic film being formed in such a manner as to cover a region of the gate structure including an oxide film and a nitride film, excluding a transfer portion of the solid state imaging device; and a wavelength of 400 nm or less. However, Admitted Prior Art Figure 4 fails to teach a second metal made shield film. Yamashita et al. teach a second **272** metal made shield film (Figure 22, col. 13, lines 3-12). Since Admitted Prior Art Figure 4 and Yamashita et

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al. are from the same field of endeavor (solid-state imaging devices), the purpose disclosed by Yamashita et al. would have been recognized in the pertinent art of Admitted Prior Art Figure 4. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the solid-state imaging device of Admitted Prior Art Figure 4 by incorporating the second metal made shield of Yamashita et al. to enhance image sense performance (col. 14, lines 9-25).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art Figure 4 and Yamashita et al. (5,463,232) as applied to claims 1-2 above, and further in view of Haga et al. (5,140,397).

Admitted Prior Art Figure 4 and Yamashita et al. teach all mentioned in the rejection above. However, Admitted Prior Art Figure 4 and Yamashita et al. fail to teach an organic film capable of absorbing rays. Haga et al. teach an organic film 11 capable of absorbing rays (Figure 3, col. 6, lines 1-19). Since Admitted Prior Art Figure 4, Yamashita et al. and Haga et al. are from the same field of endeavor (solid-state imaging devices), the purpose disclosed by Haga et al. would have been recognized in the pertinent art of Admitted Prior Art Figure 4 and Yamashita et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the solid-state imaging device of Admitted Prior Art Figure 4 and the second metal made shield of Yamashita et al. by incorporating the organic film of Haga et al. to lower manufacturing costs (col. 3, lines 52-55).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

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**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to solid-state imaging devices:

Inuiya (4,641,169)

Koike et al. (4,364,973)

Miida (US 6,512,547)

Suzuki (4,467,341).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ida M. Soward whose telephone number is (703) 305-3308. The examiner can normally be reached on Monday through Thursday, from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian, can be reached at (703) 308-4905. The Group fax number is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

ims  
5/17/03

  
**Stephen D. Meier**  
**Primary Examiner**